AUTODOC CLUB

How to change front coil springs on **AUDI A3 Hatchback (8P1)** – replacement guide

SIMILAR VIDEO TUTORIAL

This video shows the replacement procedure of a similar car part on another vehicle

Important!

This replacement procedure can be used for:
AUDI A3 Hatchback (8P1) 1.2 TSI

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: AUDI A3 Sportback (8PA) 1.2 TSI

REPLACEMENT: COIL SPRINGS – AUDI A3 HATCHBACK (8P1). TOOLS YOU MIGHT NEED:

- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- HEX bit No.H6.
- HEX bit No.H7.
- XZN socket bit # 14
- Drive socket # 13
- Drive socket # 16
- Drive socket # 18
- Drive socket # 21
- Drive socket # 24
- Wheel impact socket #17
- Ratchet wrench
- Torque wrench
- Tap wrench
- Shock absorber socket
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Buy tools

Replacement: coil springs – AUDI A3 Hatchback (8P1). AUTODOC experts recommend:

- Both coil springs of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right coil springs of the front suspension.
- All work should be done with the engine stopped.

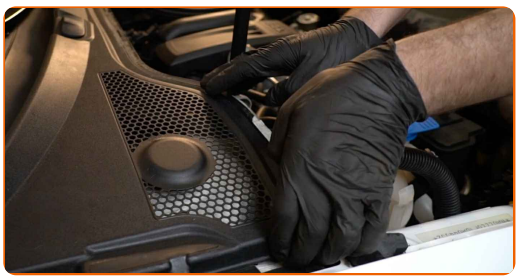
REPLACEMENT: COIL SPRINGS – AUDI A3 HATCHBACK (8P1). USE THE FOLLOWING PROCEDURE:

1 Open the bonnet.

2 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

3 Remove the cowl grille seal.

4 Raise up and remove the cowl grille.



5 Clean the fasteners of the shock strut upper mount. Use a wire brush. Use WD-40 spray.

6 Loosen the upper fastener of the shock strut mount. Use a drive socket #13. Use a ratchet wrench.

7 Secure the wheels with chocks.

8 Loosen the fastener of the driveshaft. Use a drive socket #24. Use a tap wrench.

9 Loosen the wheel mounting bolts. Use wheel impact socket #17.

10 Raise the front of the car and secure on supports.

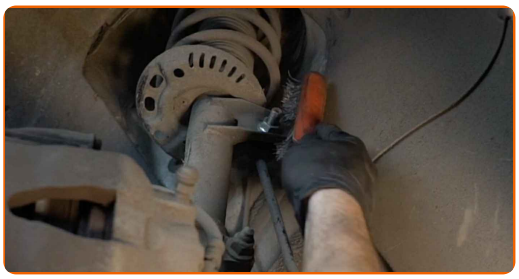
11 Unscrew the wheel bolts.

AUTODOC recommends:

- Important! Hold the wheel while unscrewing the fastening bolts. AUDI A3 Hatchback (8P1)

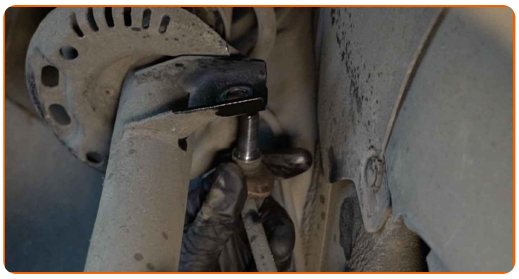
12 Remove the wheel.

13 Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.

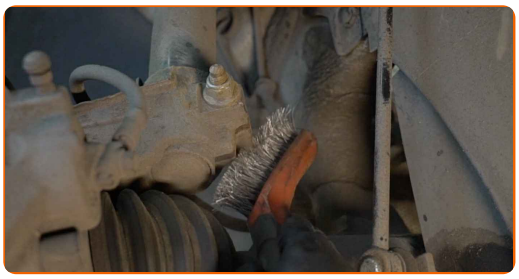


14 Unscrew the fastener connecting the stabilizer link to the shock strut. Use a drive socket #18. Use a ratchet wrench.

15 Remove the stabilizer rod.



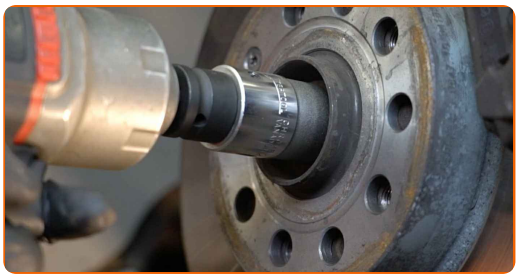
16 Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



17 Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use XZN #14. Use a drive socket #18. Use a tap wrench. Use a ratchet wrench.

18 Remove the fastening bolt.

19 Unscrew the fastener connecting the drive shaft to the wheel hub. Use a drive socket #24. Use a ratchet wrench.



20 Remove the fastening bolt.

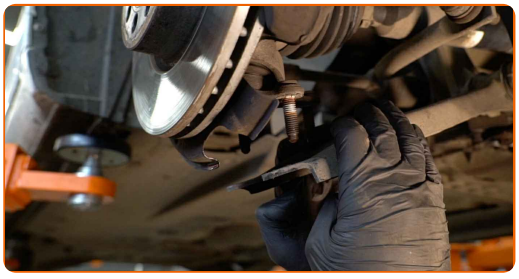
21 Clean all joints of the arm. Use a wire brush. Use WD-40 spray.

Replacement: coil springs – AUDI A3 Hatchback (8P1). Tip from AUTODOC:

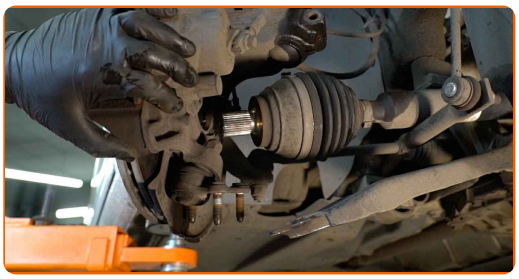
- After applying the spray, wait a few minutes.
- Wear protective goggles.

22 Unscrew the fastener connecting the ball joint to the suspension control arm. Use a drive socket #16. Use a ratchet wrench.

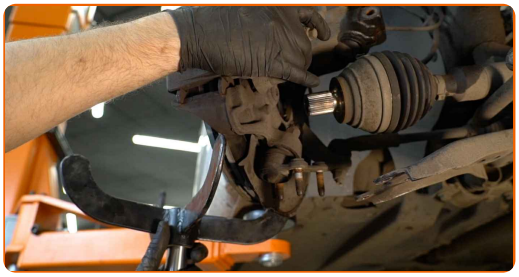
23 Disconnect the spherical joint from the arm.



24 Remove the drive shaft.



25 Prop up the steering knuckle. Use a hydraulic transmission jack.



26 Release the lower fastener connecting the shock strut to the steering knuckle. Use a special drive socket to remove the shock absorber. Use a ratchet wrench.

27 Disconnect the steering knuckle from the shock absorber strut.

28 Unscrew the top fastening of the shock strut mount.

AUTODOC recommends:

- AUDI A3 Hatchback (8P1) – To avoid injury, hold the suspension strut while unscrewing the fastening bolts.

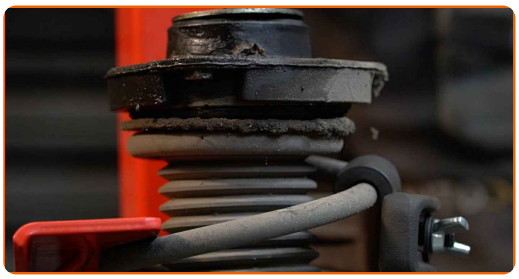
29 Remove the suspension strut.

30 Set the shock absorber strut on the spring compressor tool.

Replacement: coil springs – AUDI A3 Hatchback (8P1). Professionals recommend:

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

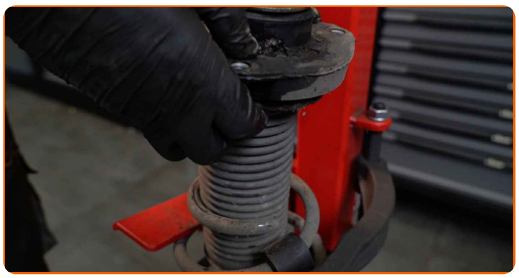
31 Compress the spring.



32 Treat the shock strut rod. Use a wire brush. Use WD-40 spray.

33 Remove the strut piston rod nut. Use HEX No.H7. Use a drive socket #21. Use a ratchet wrench.

34 Remove the shock absorber mount, boot and bump stop.

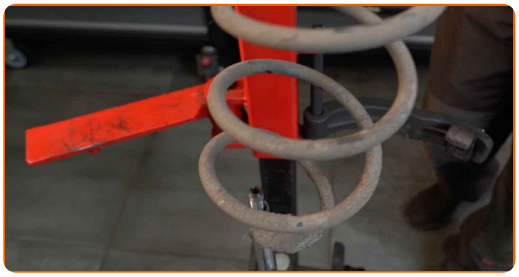


AUTODOC recommends:

- Replacement: coil springs – AUDI A3 Hatchback (8P1). Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

35 Release the coil spring.

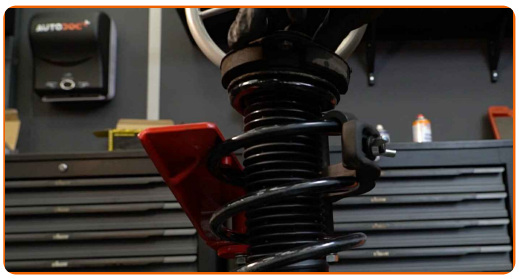
36 Remove the spring.



37 Install the spring on the shock absorber.

38 Compress the spring.

39 Install the mount, the boot and the bump stop on the shock absorber.



40 Tighten the shock strut piston rod nut. Use HEX No.H6. Use a drive socket #21. Use a torque wrench. Tighten it to 60 Nm torque.

Replacement: coil springs – AUDI A3 Hatchback (8P1). Tip:

- Check to make sure the spring is positioned correctly. Avoid its misalignment.

41 Treat the shock strut rod. Use copper grease.

42 Decompress the spring.

43 Remove the assembled shock strut.

44 Treat the mounting seats of the shock strut. Use a wire brush. Use WD-40 spray.

45 Install the shock strut into the wheel arch.

46 Screw the top fastening of the shock strut mount. Do not tighten it.

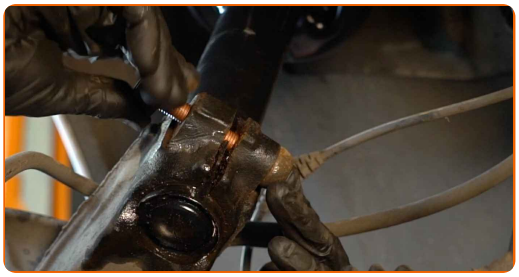
AUTODOC recommends:

- Important! Hold the suspension strut while screwing in the fastening bolts. AUDI A3 Hatchback (8P1)

47 Treat the shock strut mounting seat on the steering knuckle. Use a wire brush. Use WD-40 spray.

48 Fix the shock absorber strut on the steering knuckle.

49 Install the fastening bolt.



50 Clean the splines of the drive shaft CV joint. Use a wire brush. Use WD-40 spray.

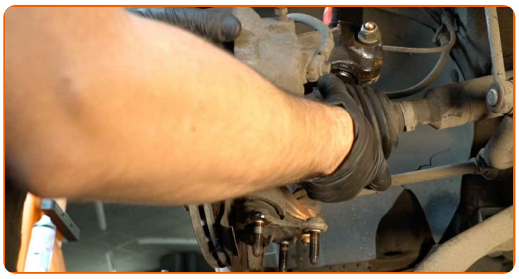
51 Clean the mounting seats and the thread of the suspension arm. Use a wire brush. Use WD-40 spray.

52 Remove the support from under the steering knuckle.

AUTODOC recommends:

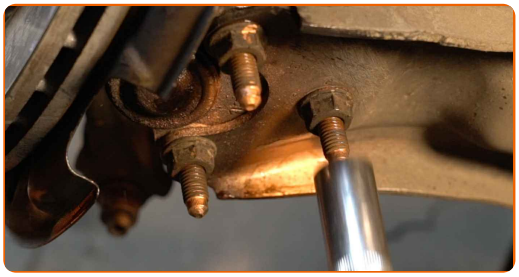
- Replacement: coil springs – AUDI A3 Hatchback (8P1). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

53 Mount the drive shaft into the wheel hub.

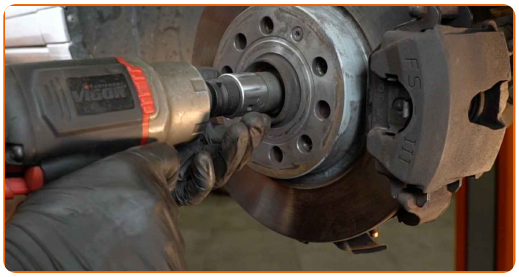


54 Attach the ball joint to the control arm.

55 Screw the fasteners of the ball joint. Use a drive socket #16. Use a ratchet wrench.

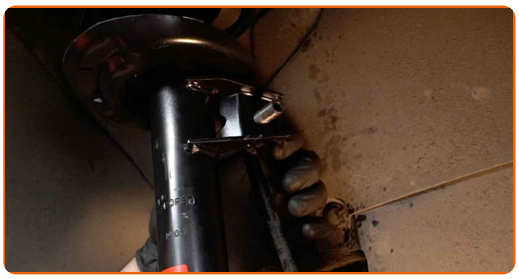


56 Install and tighten the drive shaft bolt. Use a drive socket #24. Use a ratchet wrench.

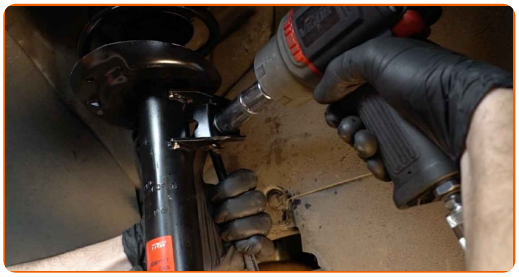


57 Screw in the fastener that connects the shock strut to the steering knuckle. Use a drive socket #18. Use XZN #14. Use a ratchet wrench.

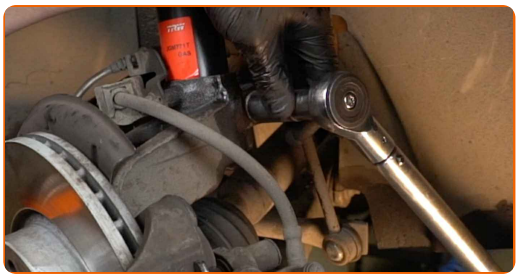
58 Install the transverse stabilizer link.



59 Tighten the stabiliser link fastener. Use a drive socket #18. Use a ratchet wrench.



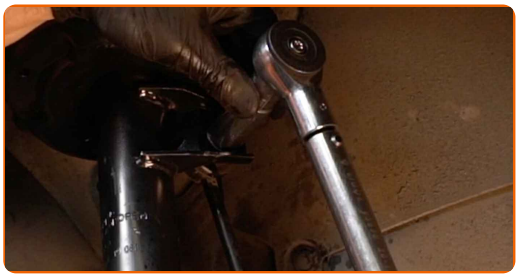
60 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #18. Use a torque wrench. Tighten it to 70 Nm torque.+90°



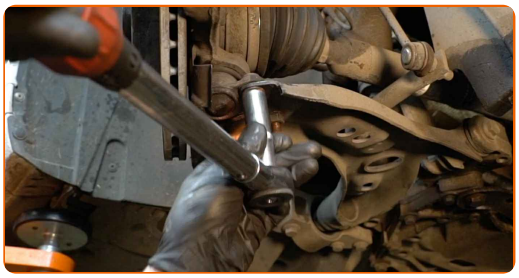
AUTODOC recommends:

- Important! Be sure to use new fasteners.

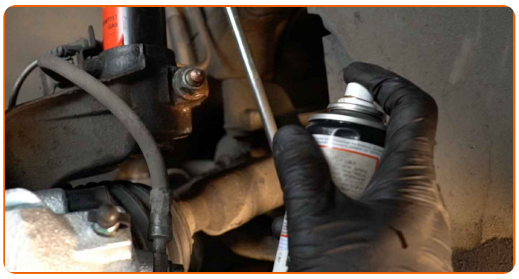
61 Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #18. Use a torque wrench. Tighten it to 65 Nm torque.



62 Tighten the ball joint fastener. Use a drive socket #16. Use a torque wrench. Tighten it to 60 nm torque.



63 Treat the shock strut fasteners. Treat all joints of the arm. Use copper grease.



64 Treat the surface where the brake disc contacts the wheel rim. Use copper grease.

65 Clean the brake disk surface. Use a brake cleaner.

Replacement: coil springs – AUDI A3 Hatchback (8P1). Tip from AUTODOC:

- After applying the spray, wait a few minutes.

66 Install the wheel.

AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. AUDI A3 Hatchback (8P1)

67 Screw in the wheel bolts. Use wheel impact socket #17.

68 Lower the car.

69 Tighten the bolt connecting the drive shaft to the wheel hub. Use a drive socket #24. Use a torque wrench. Tighten it to 200 Nm torque.+180°

AUTODOC recommends:

- Important! Be sure to use new fasteners.

70 Tighten the wheel bolts using a criss-cross pattern. Use wheel impact socket #17. Use a torque wrench. Tighten it to 120 Nm torque.

71 Remove the jacks and chocks.

72 Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #13. Use a torque wrench. Tighten it to 15 Nm torque.+90°

AUTODOC recommends:

- Important! Be sure to use new fasteners.

73 Install and secure the cowl grille.

74 Install the cowl grille seal.

75 Remove the fender protection cover.

76 Close the hood.

WELL DONE!

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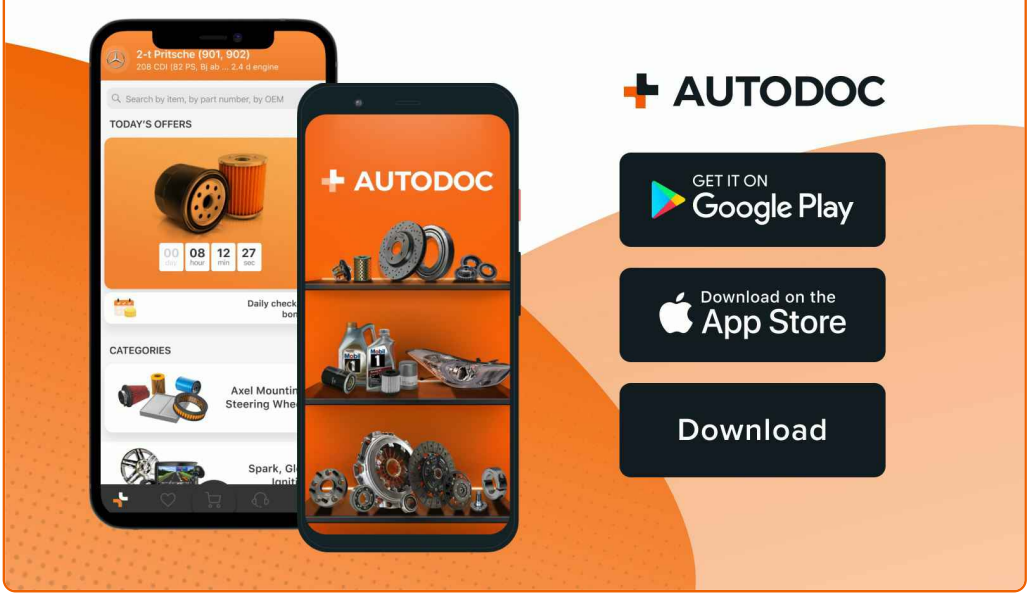

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